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Hydropower Investment Promotion Project (HIPP)

# HIPP PUBLIC AWARENESS WORKSHOP IN KHANISTSKALI RIVER BASIN COMMUNITY

Report, July 15, 2013

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USAID HYDROPOWER INVESTMENT PROMOTION PROJECT (HIPP)

CONTRACT NUMBER: EEM-I-00-07-00005-0

DELOITTE CONSULTING LLP

USAID/CAUCASUS OFFICE OF ENERGY AND ENVIRONMENT

## Background

The United States Agency for International Development (USAID) through the Hydropower Investment Promotion Project (HIPP) supports development of a minimum 400 MW in new, run-of-the-river hydropower stations in Georgia. This project is managed by Deloitte Consulting. As part of this program, HIPP has identified a cluster of six project sites in the Tskhenistskali River Basin. HIPP is now conducting pre-feasibility studies for 6 projects with a total capacity of more than 32 MW. These HPP sites are on the River Khanistskali and its tributary Laishura River in Baghdati, Imereti Region. The HIPP team is preparing basic technical studies to evaluate the technical and economic feasibility of the projects.

As part of this process and with the aim of ensuring public participation at the early planning stage, identify areas of community concern, and gather feedback from local residents public awareness workshop was held in the Building of Khani village (Bagdati region) Secondary School with the communities of Khani, Kakaskhidi and Alismereti.

## Aim of the Workshop

- Increase awareness of local communities on small and medium run-of-the-river hydro power plans and promote their support to such activities.
- Inform local community the goal of the project and ensure their involvement at the early planning stage.
- Identify community concerns regarding the possible development of the project and gain their feedback; ensure positive attitude towards the project and increase cooperation perspectives between public and project developers.

## Workshop Process

The purpose of the meetings was to provide information and get the opinions of the locals related to the project. The date, place and the scope of these meeting was preliminary informed and agreed with Baghdati local government during HIPP team field visits. Meeting date and venue were agreed with Local Municipality; Public workshop was announced to all communities in Baghdati district by local Khani Municipality, written advertisements were made at Municipality Building. Advertisement was sent to CENN electronic distribution network. HIPP team facilitated attendance of the Attorneys of all communities together with other active members at the Workshops. Khanistskali (in village Khani) PAW attended by community members from: Khani, Kakaskhidi, and communities. Totally up to 70 community members attended the workshop. Together with HIPP team the PAW was conducted by USAID's Senior Energy Infrastructure Advisor, Sukru Bogut.

During the workshop USAID and HIPP team members provided information about the project in general, made presentations on technical characteristics of the proposed HPP projects and on possible environmental and social impact. Issue that project will not create significant impoundment causing displacement of adjacent population was stressed during the workshop.

USAID and HIPP team stressed the importance of public participation at early project design phase. Participants have been asked to express their opinion/attitude towards

the project in general as well as impact on environment and socio-economic conditions of their household.

**THEMES:**

- Community members asked to consider the local infrastructure problems, mainly roads, which were particularly worsened after the construction of the high voltage line through the region, and asked USAID HIPP to consider the road repairing works as the main requirement for potential investors; Possibility of repair and upgrade of the 15 km dirt road to the village (that the builder of new 5 kV line did not do- it took one hour for us to travel this distance);

- Request form the community was to ensure proper amount of environmental/sanitary flow in the river; maintain access to the water for fishing and other purposes, or to get permit from the HPP owner on a need base;

- Another main requirement expressed by the local communities of Khanistskali River Basin was ensuring employment of the local community members in HPP construction and operation works;

- In addition, the villages in Bagdati region including Khani, Kakaskhidi and Alismereti, i.e. the communities which participated in the PAW, have severe electricity supply problems, frequent electricity cuts (electricity was gone in the middle of the PAW too). Therefore community members expressed great hope and desire that by implementation of the HPP projects their power supply problems would be solved;

- Community members agreed with USAID HIPP representatives that environmental impact of the run-of-river HPP projects would be minimal and mainly during the construction phase, and expressed hope that the investors would meet international environmental and social protection requirements.

**CONCLUSIONS:**

The outcome of Khanistskali community public awareness workshops is as follows:

- Community’s attitude towards the project development is positive; Community members think they could benefit from development of project in case the project developers properly consider their concerns/suggestions and watershed characteristics. On the other hand, community members are willing to cooperate with HPP project developers. From operation of the HPP local population expects to receive new job opportunities;

- Khanistskali community expressed interest in implementation of the projects, as they have the problems in electricity supply and think that if a new HPP is constructed nearby their problems will be resolved;

- Khanistskali Workshop also revealed no need of making a change in the design of the HIPP's sites. None of the residents declared their rights of ownership on any of the places, where constructions of the power house or intake structures are were planned, or concerning their pastures.

In summary, more than 40 community members filled in the questioner forms distributed by HIPP, and all of them marked positive attitude about possible implementation of the project in case the above-mentioned requirements are observed by investors.

USAID HIPP representatives promised the community that all their concerns and requreiments would be recorded and attached to the pre-feasibility studies presented to potential invstors (in the form of this Report ) as one of the main requirements for them to consider.

The presentation on the project profiles, informational brochure on Khanistskali River Basin HPP Cascades, also, the local map, were used as supportive documentation. Meeting agenda, photos, and electronic version of the brochure distributed among them are attached to this report as illustrative materials.

**Attachment A: Public Awareness Workshop Agenda**

**Public Awareness Meeting for Khanistskali River Basin HPP Cascades**

**Agenda**

**12 July 2013, Secondary School Building, Village Khani, Baghdadi Municipal District**

| | | | |
|---|---|---|---|
| 12:00–12:10 | Registration | | 10 min |
| | **Introductions** | **Moderator :** | Duration |
| 12:10–12:20 | Opening remarks | USAID, S. Bogut | 10 min |
| 12:20–12:50 | HIPP Project description, social and environmental issues | HIPP / I. Iremashvili | 30 min |
| 12:50–13:20 | HPP Project outline | HIPP / G. Sikharulidze | 30 min |
| | **Questions and Discussion** | | |
| 13:20–13.50 | Filling Out of Meeting Questionnaire<br>Discussion<br>• Socioeconomic Issues<br>• Environmental Issues<br>• Public Health & Safety Issues<br>• Construction Issues | Facilitated by:<br>HIPP / I. Iremashvili<br>HIPP / G. Pochkhua | 30 min |
| 13:50–14:00 | **Concluding Remarks** | HIPP/Local Municipality | 10 min |

**Attachment B: Photos of Public Awareness Workshops in Khani**


## Attachment C: Informational Brochure on HIPP and Khanistskali HPP Projects

### Local Community Benefits by Project Implementation

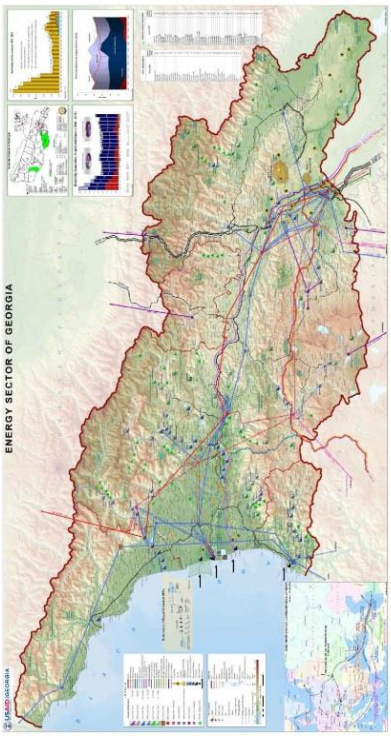
Local labor forces will be employed during the construction period, as well as after commissioning of the Plant to carry out operations and maintenance works.

- Local labor forces will be employed during the construction period, as well as after commissioning of the Plant to carry out operations and maintenance works. Job creation will also help the community as most of the people will get training in their proficiencies.
- New high quality access roads with total length of 7 km will be constructed and existing 11 km will be rehabilitated that will significantly improve the village infrastructure.
- Small gabions will result in more regular water flows in river bed and help minimize flooding.
- Increased reliability of electricity supply and improved energy supply.

### Expected results

Implementation of the project will support the realization of Georgia's hydropower potential. Khani HPPs Cascade will substantially increase power generation and help to raise the Country's energy security for a future with sustainable energy resources. Total hydroelectric generation of Khani HPP Cascade will amount to more than 32.9 MW. Realization of the project will create good opportunities for:

- selling electricity inside Georgia supplementing expensive thermal power during winter;
- exporting electricity during non-winter months to take advantage of the seasonal differentials in power prices between Georgia and its neighboring countries;
- Utilization of additional renewable energy source that will help to reduce local as well as global carbon oxide emissions to the atmosphere.

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### KHANI HPP Cascade

Tbilisi, June, 2013
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**Promoting Renewable Energy**
**Promoting the Renewal of Georgia**

# Hydropower Investment Promotion Project (HIPP)

### HIPP - Main Goals and Activity

By the request of Georgian Government, the United States Agency for International Development (USAID) has been supporting a three year Hydropower Investment Promotion Project (HIPP) since March, 2010. HIPP is implemented by the international consulting company Deloitte Consulting.

Georgia's hydropower potential is largely undeveloped. Currently only 25% of the country's total generation potential has been realized. The country has many rivers that can provide environmentally friendly, power generation run-of-river hydropower projects with high annual plant factors, making them highly attractive to investors.

The goal of the HIPP initiative is to identify investment opportunities and incentivize investors resulting in private sector commitments to construct run-of-river hydropower plants – leading to increased generating capacity, locally produced energy, enhanced energy security, and the elimination of winter imports, greatly reducing the use of natural gas and other fuel sources for electricity production.

To stimulate and secure investment in Georgia's small and medium-sized hydropower market, Deloitte/HIPP is working with local and international partners in all areas to promote awareness and investment in Georgia's hydropower resources. Key areas of activity include:

- Developing Quality Engineering and Technical Information;
- Providing Targeted and Effective Investor Outreach and Promotion;
- Supporting Institutional Strengthening and Capacity Building; and
- Partnering Programs and Opportunities to Stimulate Investment.

### Khani HPP Cascade

As part of this program, HIPP has identified a cluster of project sites along the Khanistskali River (3 HPPs) and Laishura River (2 HPPs) in Baghdati district with total capacity of 32.9 MW.

The cascade of 5 HPPs (**Khani 1, 2, 3, 4, and 5 HPPs**) will be positioned near the villages: Khani, Kakashidi, Alismereti, Tskaltashua and Nergeeti on the Khanistskali and Laishura Rivers, which are characterized by moderate flows and high head. The Khanistskali River originates on the northern slopes of the Meskheti Mountain Range and flows into the Rioni River. The river has four major tributaries including Laishura river. The catchment area is heavily wooded with significant steep slopes. The river flows in Khanistskali watershed area are very seasonal. Discharges are low during winter and summer, and are high during spring. Spring floods and autumn freshets are common to the river. Ice edges are observed during January and February. Usually water is clear and potable during low-water periods and is not used for industrial purposes.

- **Khani 1 HPP** will be positioned on the left-bank of the Khanistskali river near Khani, Kakaskhidi and Alismereti villages: its power house is in 4 km upstream from Alismereti, while intake structure is planned to be in 2.5 km upstream from Khani. The HPP will be the first stage in a cascade of five HPPs. According to the preliminary assessments, the 6.2 Megawatt (MW) run-of-river, tunnel derivation type hydro power plant can be built on the river. The site offers seasonally variable average annual generation of about 28.70 GWh, at a plant factor of about 52.8 percent.
- **Khani 2 HPP** will be positioned on the Laishura river very near Khani and Kakaskhidi villages: its power house - in 2-6 km from Khani and Kakaskhidi, as for the intake structure of the plant it should be built in 6.5 km upstream of Khani. The HPP will be the second stage in a cascade of five HPPs. According to the preliminary assessments, the 4.0 Megawatt (MW) run-of-river, tunnel derivation type hydro power plant can be built on the river. The site offers seasonally variable average annual generation of about 18.10 GWh, at a plant factor of about 51.7 percent.
- **Khani 3 HPP's** its power house will be in 4 km upstream of the village Alismereti on the north bank of Khanistskali river. While the intake structure of the plant will be located in 2.5 km upstream of Khani on the Laishura. The HPP will be the third stage in a cascade of five HPPs. According to the preliminary assessments, the 6.8 MW run-of-river, tunnel derivation type hydro power plant can be built on the river. The site offers seasonally variable average annual generation of about 31.20 GWh, at a plant factor of about 52.4 percent.
- **Khani 4 HPP** intake will be positioned in 1 km upstream of Kakaskhidi village and about 3.5 km downstream of Khani village, as for its power house, it should be built in 4.0 km upstream of Tskaltashua village. The HPP will be the fourth stage in a cascade of five HPPs. According to the preliminary assessments, the 10.1 MW run-of-river, tunnel derivation type hydro power plant can be built here. The site offers seasonally variable average annual generation of about 55.30 GWh, at a plant factor of 62.5 percent.
- **Khani 5 HPP' s** power house will be positioned in 2.0 km upstream of the village of Nergeeti, and its intake structure will be in 2.0 km downstream of Alismereti and 4.0 km upstream of Tskhaltashua villages. The HPP will be the fifth stage in a cascade of the five HPPs. According to the preliminary assessments, the 5.8 MW run-of-river, tunnel derivation type hydro power plant can be built here. The site offers seasonally variable average annual generation of about 31.90 GWh, at a plant factor of 62.8 percent.

### General Technical Data

*This Brochure was prepared by Deloitte Consulting, the implementer of USAID funded Hydropower Investment Promotion Program*

**USAID Hydropower Investment Promotion Project (USAID-HIPP)**

**Deloitte Consulting Overseas Projects - HIPP**

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